

Table 1 - Applicable Surface Sediment Quality Criteria
Log Pond Interim Action, Bellingham Bay

PARAMETER ⁽¹⁾	Sediment Quality Standard (SQS)	Minimum Sediment Cleanup Level (MCUL)
Metals (mg/kg dry weight):		
Cadmium	5.1	6.7
Mercury	0.41	0.59
Zinc	410	960
Phenols (µg/kg dry weight):		
Phenol	420	1,200
2-Methylphenol	63	63
4-Methylphenol	670	670
2,4-Dimethylphenol	29	29
Pentachlorophenol	360	690
Benzyl Alcohol	57	73
Benzoic Acid	650	650
Polynuclear Aromatic Hydrocarbons (mg/kg OC):		
Naphthalene	99	170
Acenaphthylene	66	66
Acenaphthene	16	57
Fluorene	23	79
Phenanthrene	100	480
Anthracene	220	1,200
2-Methylnaphthalene	38	64
Total LPAHs ⁽²⁾	370	780
Fluoranthene	160	1,200
Pyrene	1,000	1,400
Benzo(a)anthracene	110	270
Chrysene	110	460
Total benzo(a)fluoranthenes ⁽³⁾	230	450
Benzo(a)pyrene	99	210
Indeno(1,2,3-cd)pyrene	34	88
Dibenzo(a,h)anthracene	12	33
Benzo(g,h,i)perylene	31	78
Total HPAHs ⁽⁴⁾	960	5,300
Phthalates (mg/kg OC):		
Dimethylphthalate	53	53
Diethylphthalate	61	110
Di-n-Butylphthalate	220	1,700
Butylbenzylphthalate	5	64
Bis(2-ethylhexyl)phthalate	47	78
Di-n-Octyl phthalate	58	4,500
Miscellaneous Extractable Compounds (mg/kg OC):		
1,2-Dichlorobenzene	2.3	2.3
1,3-Dichlorobenzene	na	na
1,4-Dichlorobenzene	3.1	9.0
1,2,4-Trichlorobenzene	0.8	1.8
Hexachlorobenzene	0.38	2.3
Dibenzofuran	15	58

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Confirmatory Biological Testing Determinations (optional):		
Overall Interpretation	The SQS is exceeded when any one of the confirmatory marine sediment biological tests of WAC 173-204-315(1) demonstrates the following results:	The MCUL is exceeded when any two of the biological tests exceed the SQS biological criteria, or one of the following test determinations is made:
Amphipod Toxicity Bioassay	The test sediment has a lower (statistically significant, t-test, p=0.05) mean survival than the reference sediment, and the test sediment mean survival is less than 75 percent, on an absolute basis.	The test sediment has a lower (statistically significant, t-test, p=0.05) mean survival than the reference sediment, and the test sediment mean survival is 30 percent lower than a value represented by the reference sediment mean mortality plus thirty percent.
Larval Toxicity/Abnormality Bioassay	The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t-test, p=0.10) than the mean normal survivorship in the reference sediment, and the test sediment mean normal survivorship is less than 85 percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than 15 percent relative to time-final in the reference sediment).	The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t-test, p=0.10) than the mean normal survivorship in the reference sediment, and the test sediment mean normal survivorship is less than 70 percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than 30 percent relative to time-final in the reference sediment).
Juvenile Polychaete Growth Bioassay	The test sediment has a mean individual growth rate of less than 70 percent of the reference sediment mean individual growth rate and the test sediment mean individual growth rate is statistically different (t-test, p=0.05) from the reference sediment mean individual growth rate.	The test sediment has a mean individual growth rate of less than 50 percent of the reference sediment mean individual growth rate and the test sediment mean individual growth rate is statistically different (t-test, p=0.05) from the reference sediment mean individual growth rate.

NOTES:

- (1) Including all analytes detected above SQS criteria in surface or subsurface sediments at the Whatcom Waterway Site (Anchor Environmental and Hart Crowser 1999).
- (2) Total LPAHs represents the sum of detected naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.
- (3) Total benzofluoranthenes represent the sum of the concentrations of the b, j, and k isomers.
- (4) Total HPAHs represents the sum of detected fluoranthene, pyrene, benzo(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.